



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,759	07/30/2003	Glenn Roy	006943.00107	6813
66811	7590	10/04/2007		EXAMINER
BANNER & WITCOFF, LTD. and ATTORNEYS FOR CLIENT NO. 006943 10 SOUTH WACKER DR. SUITE 3000 CHICAGO, IL 60606				STULII, VERA
			ART UNIT	PAPER NUMBER
			1761	
			MAIL DATE	DELIVERY MODE
			10/04/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/629,759	ROY ET AL.
	Examiner	Art Unit
	Vera Stulii	1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 26 July 2007.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-7, 10-13 and 15-25 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-7, 10-13 and 15-25 is/are rejected.

7) Claim(s) 2, 22, 23 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____.

**DETAILED ACTION**

***Claim Objections***

Claim 2, 22 and 23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 2, 22 and 23 recite compound selected from the closed set ("color stabilizer is further selected from the group consisting of cinnamoyl esters, coumarins, chalcones, flavones, chromones, isoflavones, and combinations thereof"). However, compounds recited in claims 2, 22 and 23 are outside of the closed set recited in claims 1, 20 and 21 ("botanically derived color stabilizer is selected from the group consisting of rosmarinic acid, chlorogenic acid, cichoric acid, caffeic acid, coumaric acid, cinnamic acid, ferulic acid, sinapic acid, caftaric acid, eichloric acid, echinacoside and combinations thereof"). Therefore, it is not clear how claim 2 further limits claim 1, claim 22 further limits claim 20, and claim 23 further limits claim 21.

***Claim Rejections - 35 USC § 112***

Claims 1-7, 10-13 and 15-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, 20 and 21, the recitation of a selection from a group of elements in a claim should comply with accepted U.S. Patent practice with regard to the

recitation of Markush grouping of claim elements. Phrases using "comprising" are open sets, and should recite elements in the alternative (i.e. "comprising A, B, C or D"), whereas closed sets ("consisting of") should recite elements as "selected from the group consisting of A, B, C and D."

Claims 3-7 are rendered indefinite for the recitation of the phrase "The food coloring composition according to claim 1, wherein the synthetic color is present in an amount sufficient to impart an amount of added color to a beverage ranging from about ...". It is not clear what applicant means by "added color". It is also not clear whether "color" and "added color" refers to the same coloring compound or to the same color. It is also not clear what is the significance of term "added". It is not clear if this implies that the beverage already has coloring agent in it. It is also not clear what are the parts per million based on, since claim 1 only recites the food coloring composition and not the beverage. The metes and bounds of this claim are also not clear, since the amount of beverage is not recited, which means that recitation of color amounts may fit any range disclosed by reference.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

**Claims 1-7, 10-11, 15-18, 20-25 are rejected under 35 U.S.C. 102(a) as being anticipated by Akihiko et al (JP 2001323263).**

ICS (Institute for Coffee Studies) and Horn-Ross are cited as evidence as discussed below.

In regard to claim 1, 20, 21, 22-25 Akihiko et al disclose a food coloring composition comprising pigment color and pigment fading inhibitor (Abstract). Akihiko et al disclose riboflavin as a pigment, and coffee bean extract as a pigment fading inhibitor (Abstract). Akihiko et al also disclose that color (pigment) is used for food and beverages (Abstract). Regarding “*synthetic* color” limitation, Akihiko et al disclose industrial riboflavin preparation (p.3 [0014]). Akihiko et al disclose that raw coffee beans extract contains 33% of chlorogenic acid (p. 4 [0015]).

As evidenced by ICS, “Green coffee beans contain up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent)”. Regarding claim 10, as evidenced by ICS, “Green coffee beans contain up to 10% of chlorogenic acids, i.e., various isomers of hydroxy-cinnamoyl esters of quinic acid (a common plant constituent)”. Regarding claim 11, as evidenced by Horn-Ross, primary sources of coumestrol and lignans include orange juice and coffee (p. 300). Regarding claim 15, as evidenced by Horn-Ross, coffee is a major source of daidzein (isoflavone) (p. 300). Regarding claim 16, Akihiko et al disclose botanical extract (coffee bean). Regarding claims 17, 24, and 25, Akihiko et al disclose that raw coffee beans (green coffee beans) extract contains 33% of chlorogenic acid (p. 2 [0009]; p. 4 [0015]).

Regarding claims 3-7, Akihiko et al teach that concentrations color inhibiting composition and color are not limited, and may be chosen depending on "content and concentration of coloring matter", preferably 0.001 to 500% of the weight of the coloring matter (p. 3 [0013]). See also rejection of claims 3-7 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Since Akihiko teach the use of a botanically derived color stabilizer from coffee extract, and since coffee extract contains chlorogenic acids, isomers of hydroxy-cinnamoyl esters, coumestrol (coumarin), and daidzein (isoflavone), then coffee extract disclosed by Akihiko meets limitation of chlorogenic acid recited in claims 1 and 20-21, cinnamoyl esters recited in claims 2, 10 and 22-23, coumestrol (coumarin) recited in claims 2, 11 and 22-23, and daidzein (isoflavone) recited in claims 2, 15 and 22-23.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1761

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 12-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko et al (JP 2001323263) in view of COFFEE (COFFEE: RELATED BEVERAGES).**

Akihiko et al is taken as cited above.

Akihiko et al do not disclose use of botanical extracts other than coffee bean extract. It is not clear whether coffee extract contains chalcones and flavones.

COFFEE reference discloses that dandelion root is a well known coffee substitute that is sometimes used to a considerable extent. COFFEE discloses that "dandelion root was known in 1855, and was produced industrially in this century in Denmark and Sweden" (p. 12). COFFEE also discloses that similarity of the root with that of chicory has long been recognized (p. 12). COFFEE also discloses that chicory was a well known coffee substitute that is still widely commercially produced (p. 2).

COFFEE reference also discloses that hawthorn (the fruits of *Crataegus oxyacantha* L.) were used as a coffee substitute by the German Government in the First World War (p.16).

On pages 6-7 of Specification Applicants state that "In other preferred embodiments, the C<sub>6</sub>-C<sub>3</sub> phenylpropenoic carbonyl compound is selected from cinnamoyl esters, coumarins, chalcones, flavones, chromones, isoflavones, and combinations thereof and may optionally be provided in the form of an extract of a botanical selected from horse chestnut extract, *dandelion* extract, eucalyptus extract, stringybark extract, saw palmetto extract, honeysuckle extract, *hawthorn* extract, noni fruit extract, red clover extract, orange extract, buckwheat extract, chamomile extract and combinations thereof" [0021]. Since Akihiko et al disclose pigment fading inhibitor comprising coffee bean extract as an active ingredient, and since dandelion root and hawthorn were well known coffee substitutes, one of the ordinary skill in the art would have been motivated to substitute one coffee material with another coffee material (dandelion or hawthorn), since beans, dandelion root and hawthorn were well known coffee substitutes. Since COFFEE discloses dandelion root extract and hawthorn extract, it also meets limitations of claims 12 and 13 according to Applicants' disclosure.

**Claim 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akihiko et al (JP 2001323263).**

Akihiko et al do not disclose that coloring composition contains sorbic acids, aconitic acid, fumaric acid, or maleic acid.

Akihiko et al is taken as cited above.

Regarding claim 19, Akihiko et al disclose that additional substance may be added to coffee bean extract, for example ascorbic acid as a reducing agent (p. 2 [0010]).

It was well known in the art that fumaric acid and sorbic acids are strong reducing agents that were used in food industry. One of the ordinary skill in the art would have been motivated to modify disclosure of Akihiko et al and to use fumaric or sorbic acid as a reducing agent as taught by Akihiko et al. One of ordinary skill in the art would have been motivated to do so since Akihiko et al teach adding any reducing agents. One of ordinary skill in the art would also have been motivated to do so, since fumaric acid and ascorbic acid were well known reducing agents.

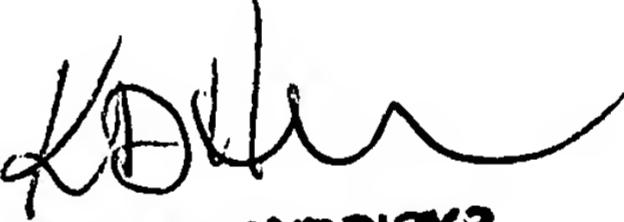
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vera Stulii whose telephone number is (571) 272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VS



KEITH HENDRICKS  
PRIMARY EXAMINER